2012

Modular Distributed Power (MDP)

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Bay Technical Associates, Inc

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ABOUT THIS MDP OWNER'S MANUAL

This document provides information required for installing and operating your Bay Tech equipment. It should allow the user to connect to, power up, and access an applications menu where peripheral equipment can be controlled. We recommend reading this manual carefully, while placing special emphasis on correct cabling and configuration. If you have any problems with your installation, please contact a BayTech Applications Engineer at **228-563-7334**, or toll free from anywhere in the United States using **1-800-523-2702** or contact us at our Web Site, www.baytech.net.

BayTech manufactures many remote site management power products and data switches. If you would like information on any of these products, please contact BayTech Customer Service at the above numbers or visit our web site.

Conventions used in this manual include:

CAUTION: This term is used to denote any condition that could possibly result in physical harm to personnel or damage to equipment.

IMPORTANT: This term is used to denote conditions that could result in the loss of communications or to highlight the proper functioning of equipment.

NOTE: This term is used to denote items of interest to the user.

<cr>: Carriage Return or ENTER

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Bay Technical Associates, Inc.

In the interest of improving internal design, operational function, and/or reliability, Bay Technical Associates, Inc reserves the right to make changes to the products described in this document without notice.

Bay Technical Associates, Inc does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

COMPLIANCE STANDARD

BayTech units are in accordance with the general requirements of *Standard for Information Technology Equipment* (ETL listed, conforms to ANSI/UL 60950-1 2nd Edition and CAN/CSA C22.2 No. 60950-00. CE conforms to IEC 60950.) *Equipment installations are to be in accordance with the Canadian Electrical Code, Part I, CSA C22.1-02; General Requirements – Canadian Electrical, Part II, CSA C22.2 No 0-M91; the National Electrical Code, NFPA 70-2005; and the National Electrical Safety Code, NFPA, IEEE C2-2002.*

MDP =Modular Distribution Power. This is the plain power strip. No metering, no communications or environmental port.

MMP = Modular Metered Power. This unit measures RMS voltage, and current. Calculates power in watts and power factor efficiency per circuit. Also measures these factors for each outlet and has Environmental Sensor and communications ports, RS232 and/or Direct IP.

MRP = Modular Remote Power. This unit measures RMS voltage, and current. Calculates power in watts and power factor efficiency per circuit and has Environmental Sensor and communications ports, RS232 and/or Direct IP

MSP = Modular Sensor Power. This unit measures Input and circuit RMS current. Unit may have Environmental Sensor and communications ports, RS232 and/or Direct IP.

Model number description: MDP10.328.324BL-XX
MDP10 = base unit MDP10 group includes Dual Circuit Breaker (6ea); **3** = Quantity; **28** = Receptacle Module; **3** = Quantity; **24BL** = Receptacle Module; **XX** = Power plug type

We welcome any comments you may have about our products, and we hope that you will continue to look to BayTech for your remote management needs.

INSTALLATION

Unpacking

Compare the unit and serial number of the equipment you received to the packing slip located on the outside of the box. Inspect equipment carefully for damage that may have occurred in shipment. If there is damage to the equipment or if materials are missing, contact BayTech Customer Support at **228-563-7334** or call toll free inside the United States at **800-523-2702**. At a minimum, you should receive the following:

1. The MDP unit.
2. Paper insert referencing BayTech's website a www.baytech.net/support/ftp_series.php.
3. 1 set of either Vertical or Horizontal Brackets -- M140C138, M140R114, M140R115

NOTE: Keep the shipping container and packing material in the event future shipment is required.

Preparing the Installation Site

The installation area should be clean and free of extreme temperatures and humidity. Allow sufficient space behind the MRP/MMP/MSP/MDP unit for cabling and receptacle connections. Access to installation site should be restricted to authorized personnel. Installation of these units should be limited to ITE and Telco server environments.

PRÉPARATION DE L'EMPLACEMENT D'INSTALLATION
Le secteur d'installation devrait être propre et exempt des températures et de l'humidité extrêmes. Permettez le suffisamment d'espace derrière l'unité de MRP/MMP/MSP/MDP pour des raccordements de câblage et de réceptacle. L'accès à l'emplacement d'installation devrait être limité au personnel autorisé. L'installation de ces unités devrait être limitée à ITE et à environnements de serveur de Telco.

Power

- **208V 3øY VAC Model:** Internal 120/208 VAC, 3Ø, 50/60 Hz (16, 20, 30, 32, 50 or 60 Amps Maximum Load).
- **400V 3øY VAC Model:** Internal 230/400 VAC, 3Ø, 50/60 Hz (16, 20, 30, 32, 50, or 60 Amps Maximum Load)
- **208V VAC Model:** Internal 120/208 VAC 50/60 Hz (10, 15, 16, 20, 30, 32, 50, or 60 Amps Maximum Load).
- **120V VAC Model:** Internal 120 VAC 50/60 Hz (15, 20, 30, 50, or 60 Amps Maximum Load).

CAUTION: This unit is intended for indoor use only. Do not install near water or expose this unit to moisture. To prevent heat buildup, do not coil the power cord when in use. Do not use extension cords. Do not attempt to make any internal changes to the power source. Do not attempt to modify any portion or component of an MRP/MMP/MSP/MDP Series Unit unless specifically directed to by BayTech personnel. BayTech must perform any internal operations.
ATTENTION: Cette unité est prévue pour l'usage d'intérieur seulement. N'installez pas près de l'eau ou n'exposez pas cette unité à l'humidité. Pour empêcher l'habillage de la chaleur, ne lovez pas le cordon de secteur en service. N'employez pas les cordes de prolongation. N'essayez pas de n'apporter aucune modification interne à la source d'énergie. N'essayez pas de ne modifier aucune partie ou composant d'une unité de série de MRP/MMP/MSP/MDP à moins qu'ait spécifiquement dirigé vers par le personnel de BayTech. BayTech doit effectuer toutes les opérations internes.

CAUTION: High-voltage surges and spikes can damage this equipment. To protect from such power surges and spikes, this unit must have a good earth ground or good power surge protection.
ATTENTION: Les montées subites et les transitoires à haute tension peuvent endommager cet équipement. Pour se protéger contre de telles montées subites et transitoires de puissance, cette unité doit avoir une bonne protection rectifiée ou bonne de la terre de puissance de montée subite.

CAUTION: Do not exceed the AC current rating for the selected model.
ATTENTION: Ne dépassez pas l'estimation courante à C.A. pour le modèle choisi.

CAUTION: In order to be absolutely removed from the power supply, the power cord must be unplugged from the power source.
ATTENTION: Afin d'être absolument enlevé de l'alimentation d'énergie, le cordon de secteur doit être débranché de la source d'énergie.

CAUTION: For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device (Circuit Breaker rated not to exceed the amperage rating of the unit) shall be incorporated in the fixed wiring between the power source and the Baytech unit. For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and easily accessible. The outlets providing power to the unit shall be protected against over current, short circuit and earth fault by suitable rated protective devices.

ATTENTION: Pour l'ÉQUIPEMENT DE MANIÈRE PERMANENTE RELIÉ, un dispositif aisément accessible de débranchement (disjoncteur évalué pour ne pas dépasser l'estimation d'ampérage de l'unité) sera incorporé dans le câblage fixe entre la source d'énergie et l'unité de Baytech. Pour l'ÉQUIPEMENT QUE L'ON PEUT BRANCHER, la douille-sortie sera installée près de l'équipement et facilement accessible. Les sorties fournissant la puissance à l'unité seront protégées contre le courant, le court-circuit et le défaut de terre finis par les dispositifs protecteurs évalués appropriés.

Applying power illuminates a green LED on the front panel of the MRP/MMP/MSP/MDP. When the power switch is off, devices connected to the unit are not receiving power.
Mettre sous tension illumine une LED verte pour la puissance sur le panneau avant de la MRP/MMP/MSP/MDP. Quand le commutateur électrique est éteint, les dispositifs reliés à l'unité ne reçoivent pas la puissance.

Circuit Breaker

Depending on if the unit has circuit breakers, in the case of power overload, the circuit breaker automatically trips. Determine the cause of the tripped circuit breaker, correct the problem then reset the circuit breaker by depressing the circuit breaker switch. If an overload condition occurs, the MRP/MMP/MSP/MDP status menu is still accessible. If all circuits are closed, the circuit breaker status menu will indicate “On.” If the circuit breaker is tripped, the circuit breaker status will indicate “Off.” If no power cord is attached to the “IN” receptacle, the circuit breaker status will indicate “Off”, indicating there is no power available to the “OUT” receptacle.

208V/48A Rated Model:
(60A Maximum Over current protection Device).
208V/40A Rated Model:
(50A Maximum Over current protection Device).
208V/24A Rated Model:
(30A Maximum Over current protection Device).
208V/16A Rated Model:
(20A Maximum Over current protection Device)
208V/12A Rated Model:
(15A Maximum Over current protection Device)
400V/16A Rated Model:
(20A Maximum Over current protection Device)
120V/24A Rated Model:
(30A Maximum Over current protection Device)
120V/16A Rated Model:
(20A Maximum Over current protection Device)

Rack Mount Hardware

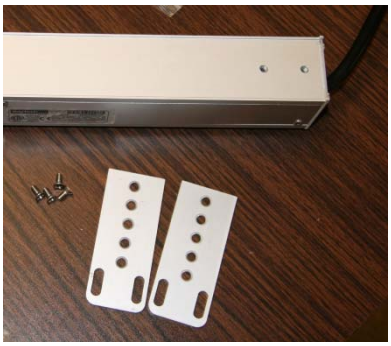
Tool Less hardware installed on back of unit. If hardware is not needed, remove with Phillips screwdriver.

Instructions to install M140C138 brackets to the Baytech vertical power strip.

- In each unit locate the small bubble wrapped brackets containing two brackets and four screws. See figure 1 and 2.

Figure1

Figure2



- Line up the bracket holes to the holes on the unit. Figure 3.

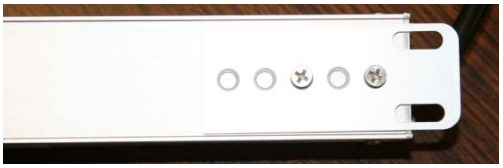
Figure 3

- Screw in two screws. Figures 4, 5, & 6 show the bracket mounted in three different positions.

Figure 4

Figure 5

Figure 6



BayTech Product Warranty

Bay Technical Associates (BayTech) warrants that its products will be free from defects in materials and workmanship under normal use for a period of two years from date of purchase (or from date of shipment from BayTech if proof of purchase is not provided).

During this warranty period, BayTech shall, at its discretion, either repair or exchange any defective product at no charge for labor and materials, or refund the amount paid for the product, less shipping and handling charges. Any replacement and/or repaired products are warranted for the remainder of the original warranty.

The customer is responsible for properly packaging the product and for shipping costs for returns. The customer is liable for loss or damage to the product during shipping, as well as any other fees or charges associated with transporting the product back to BayTech. BayTech will pay return costs for delivery within the Continental United States.

All repair and return shipments must be approved by BayTech and must be accompanied by an RA (return authorization) number. Please refer to our Repair and Return Policy below.

For the initial 30 days from the original date of shipment, any unopened product may be returned to BayTech, accompanied by an RA number. Full purchase price will be refunded, provided that the product is in excellent condition. A product may not be returned after 30 days from the original date of shipment unless approved by BayTech management.

For additional information or more specific warranty issues, contact BayTech's Technical Support or Customer Service Departments at (800) 523-2702 or (228) 563-7334.

Exceptions

This warranty does not cover misuse or minor imperfections that fall within design specifications or that do not materially alter functionality. BayTech does not warrant and is not responsible for damages incurred in shipping and handling or caused by disasters (such as fire, flood, wind, earthquake, lightning, power surges or water).

The warranty will be voided regarding products that have been neglected, altered, abused, misused, or used for purposes other than those for which it was designed.

Under no circumstances shall BayTech be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include (but are not limited to) loss of profits, loss of the product or associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

BayTech Extended Warranty

Extended warranties and but only at the time of product purchase. The extended warranty cost will not exceed 7% per year of the product list price unless otherwise stated in the customer contract or approved by BayTech management. Contact BayTech for further details on this.

Technical Support

BayTech offers Tech Support for the lifetime of the product. A staff of Applications Engineers is on duty to assist with installation, set up or operation issues. Support is available from 8:00 a.m. to 5 p.m. (CST or CDT), Monday through Friday at the phone numbers or website provided below.

Please have the following information available to help the Applications Engineers answer questions efficiently:

- BayTech model type
- Unit serial number
- Firmware version (if accessible)
  A list of devices connected to the BayTech unit
- A general description of the application being used and the intended outcome
- Information about cables and adapters being used (type, length, place of purchase)
- The name of the software emulation program being used
- Printout of the configuration status (if possible)

Bay Technical Associates, Inc.
5239 A Avenue
Long Beach Industrial Park
Long Beach, MS 39560

Telephone: 800-523-2702 or 228.563.7334
FAX: 228.563.7335
Email: support@baytech.net
Website: www.baytech.net

Repair Policy

(Return policy refers to BayTech products purchased and returned for credit or repair.)

A Return Authorization (RA) number must be obtained in all cases before returning the BayTech product. Have the **serial number** and **reason for the return or description of the problem handy**. Customers in the Continental U.S. can call 1-800-523-2702 or international customers can call 228.563.7334 to obtain an RA number.

Before dismantling equipment or returning the unit for any reason, *always contact BayTech.* Attempting to repair a product without BayTech authorization may result in voiding the warranty.

Cost and Time:
The cost of repair for units no longer under warranty will be $50.00 per hour plus cost of materials and shipping. Typical turnaround times for repairs are 3 days for domestic requests and 5 days for international.

Follow the instructions below for repackaging and shipping. **NOTE: *Power should be disconnected from the power source before servicing or dismantling.***

Return Authorization Process:

a. Contact BayTech via Phone, Fax, or Email to get a Return Authorization (RA) Number. *IMPORTANT: BayTech will not accept any returns without an RA number.*

b. Package the unit carefully in its original packaging or similar packaging. The warranty does not cover damage sustained during shipment. Enclose a letter with name, address, RA number, daytime phone number and description of the problem.

c. Mark the RA number clearly on the outside of the package.

d. Ship the unit by insured, prepaid carrier to the following address:

Bay Technical Associates
5239 A Avenue
Long Beach Industrial Park
Long Beach, MS 39560
RA #: 140-xxxxx